Territory Iron Pty Ltd

Exploration Activities completed for MLN1163 - Reporting Period 24\textsuperscript{th} March 2011 to 23\textsuperscript{rd} March 2012

Rum Jungle Mineral Field
Darwin 1: 250,000 Sheet SD 52-4
Bynoe 1: 100,000 Sheet 5072

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22 May 2012
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SUMMARY

This report describes the exploration activities undertaken by Territory Iron Pty Ltd (TIPL) at the Yarram Project Area, which is partially located within MLN1163, for the period 24 March 2011 to 23 March 2012.

MLN1163 is located about 8 km NW of Batchelor and 61 km SSE of Darwin in the Northern Territory and covers 126.1 hectares. The Yarram Project Area covers an approximate 2.1sq km area over tenements ELR125, ELR146 and MLN1163, and is subject to an agreement between Territory Iron Pty Ltd and tenement owners Compass Resources Ltd (90%) and Guardian Resources Ltd, (10%) whereby Territory Iron has the right, subject to certain royalty terms, to explore, mine and purchase iron ore from Compass/Guardian.

Territory Iron’s exploration activities within the reporting period over MLN1163 include:

- Reconnaissance trips by TIPL staff to assess the area
- Detailed geological mapping by an independent geological consultant
- Rock-chip sampling program to further define iron ore mineralisation
- Desktop studies and historical reviews

Territory Iron submitted an Exploration MMP in March 2012 encompassing the Yarram Rum Jungle Project Area (Authorisation 0263-01) that includes MLN1163. Proposed work includes Aircore drilling and Reverse Circulation drilling. Authorisation is pending at the day of this report.

Expenditure for the reporting period was $6,710.
1. Introduction

This report describes the exploration activities undertaken at the Yarram Project Area within MLN1163 during the period 24 March 2011 to 23 March 2012.

The Yarram Project Area is subject to an agreement between Territory Iron Pty Ltd and tenement owners Compass Resources Ltd (90%) and Guardian Resources Ltd, (10%) whereby Territory Iron has the right, subject to certain royalty terms, to explore, mine and purchase iron ore from Compass/Guardian.

2. Location and Access

The Yarram Project Area is located approximately 9 km NW of the township of Batchelor in the Rum Jungle Mineral Field and 61 km SSE of the city of Darwin in the Northern Territory.

All weather road access is approximately 8 km via the Batchelor - abandoned Rum Jungle Uranium Mine access sealed road; then 1.3km along the gravel formed White Road for 1.3km in a westerly direction. Access into the Yarram East Prospect is then along easterly and northerly oriented fire-break tracks. Access into the Yarram West Prospect is a further 650m along White Road and thence south along a fire break.

3. Tenement Status

MLN 1163 is currently held by Compass Resources Limited (90%) and Guardian Resources Pty Ltd (10%). The tenement is part of a portfolio in which ownership is 50/50 with HNC (Australia) Resources Pty Ltd. It covers 126.1 hectares, and was granted on the 24th March 2005 for a period of 25 years.

The Yarram Prospect is subject to an ‘Iron Ore Rights agreement’ between Territory Iron Pty Ltd (TIPL) and Compass Resources Ltd / Guardian Resources Pty Ltd, which also includes adjacent tenements ELR125 & ELR146 (shown in Figure 1).
Figure 1 Tenement Location plan showing Yarram Project Area within MLN1163
4. Regional Geology, Mineralisation and Structure

Mapping at 1: 100,000 scale and reinterpretation of the Rum Jungle Mineral Field by the Northern Territory Survey (NTGS) published by Lally (2004) has clarified the stratigraphy, structure and mineralisation of this region (Figure 2).

The Rum Jungle Mineral Field forms the NW sector to the Pine Creek Geosyncline which contains palaeo Proterozoic basin-fill sediments that unconformably overlie domed late Archaean granite-gneiss basement domes. The Geosyncline contains a wide spectrum of mineral commodities including U, Cu, Co, Ni, Pb, Zn, Au, Fe magnesite and phosphate.

The Archaean Rum Jungle Complex comprises schist, granite gneiss, banded iron formation and granite, and is exposed in two domal inliers in the centre of the map area. Rocks in the cores of both Domes are poorly exposed, but have been subdivided into different units by mapping and from their geophysical characteristics. The basement complex is unconformably overlain by a sedimentary succession comprising the Manton, Mount Partridge, South Alligator and Finniss River Groups of the Pine Creek Orogen. Dolerite and gabbro sills and plugs of the Zamu Dolerite intruded these sediments.

In the Yarram district the Coomalie Dolostone (Dolomite) forms the basal, poorly outcropping lithology. Conformably overlying it is the Whites Formation (pyritic calcareous carbonaceous argillite with a basal quartzite member). This is conformably overlain by the Wildman Siltstone (finely laminated argillite and shale) containing the Acacia Gap quartzite member and the Mt Dean Volcanics para amphibolite member.

Unconformably overlying the Coomalie Dolostone, and less commonly the Whites Formation, is the Geolsec Formation (haematitic quartzite breccia (HQB), haematitic sandstone, siltstone and mudstone, and rare shale breccia) formed as erosional infill of a karst developed surfaces in the Coomalie Dolostone. The siltstone member is phosphate rich with microcrystalline fluoroapatite (Ca_{10}(PO_4)_6F_2) associated with haematitic siltstone. Contemporaneous development of the phosphatic siltstone and breccias suggest the breccias were deposited into a shallow marine environment (Lally 2004). The Geolsec Formation sediments were deposited around the Waterhouse Dome and unconformably overlie dolostones of the Mount Partridge Group. Tolmer Group marine sandstone overlies the Finniss River Group in the south western map area.

Multiple folding and faulting events affected Pine Creek Orogen rocks from 1880-1760 Ma. Early northwest-directed thrusts were overprinted by tight to isoclinal north-trending folds, accompanied by upper greenschist facies metamorphism. Open folding and kinking was the distal expression of granite emplacement to the east and southeast. Retrograde lower greenschist facies metamorphism accompanied regional-scale, northwest-trending strike-slip faulting. Eight deformation events have been recognized in the Rum Jungle Mineral field.

Significant U, Pb Zn, Ag, Cu, Ni, Co and Au mineralisation has been mined in the Rum Jungle Mineral Field. Sub economic occurrences of phosphate, magnesite and iron ore (Yarram and other localities) have been reported from the Rum Jungle Mineral Field. Iron deposits in the Rum Jungle Mineral Field were not described in the explanatory notes by Lally (2004), although they were annotated on the NTGS 1:100,000 Interpreted Geology Special Map published in 2003.
Compass Resources Ltd / HNC Resources Pty Ltd is developing the Browns polymetallic base metal deposit hosted in black metapelites of the Whites Formation and located approximately 1km SE of Yarram at the intersection of White and Rum Jungle Mine Roads.

Figure 2 Regional Geological Setting
5. **Territory Iron’s 2011-2012 Exploration Activities within MLN1163**

Territory Iron previously carried out drilling in the Yarram Project Area in late 2005. Desktop studies and historical reviews were carried out during the reporting year, to assist in proposed drilling for the 2012-13 period. TIPL Exploration Geology staff also undertook reconnaissance visits to the tenement for ground truthing.

Total Expenditure on the tenement during the reporting period was $6,710. The expenditure form is attached in Appendix 3.

5.1 **Geological Mapping & Rock-chip sampling**

Geological mapping within the Yarram Project Area was carried out over the period 23rd to 26th January 2012 by an independent geological consultant. The intention of the mapping was to assist in the interpretation of previous results that have been obtained in earlier drilling programs, and to recommend further exploration targets.

The mapping indicated that mineralisation occurs in a series of brecciated siltstone, shale and dolostone horizons in the Coomalie Dolostone Formation. The breccias are composed mainly of goethite/limonite and are frequently cored with lenses of hematite. The mineralised zones appear to be associated with faults trending approximately southwest.

The mapping was done by collecting geological data on walking traverses in the field followed by photo-interpretation of the available orthophoto. A copy of the report is attached in Appendix 2. Rock-chip samples were collected at preferred sites; their locations are shown in Figure 3 and the data is attached in Appendix 1.

6. **Proposed 2012-13 Program**

Territory Iron submitted an Exploration MMP in March 2012 over the Yarram Project Area that includes MLN1163. Proposed work includes Aircore drilling and Reverse Circulation drilling. Authorisation is pending at the day of this report.
Figure 3: Rock-chip Sample Locations within MLN1163 during reporting period
Appendix 1
NT DoR text files (includes Verification List)
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Independent Geological Report
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Exploration Expenditure Statement